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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,413	10/16/2002	William O. Camp JR.	U02-0003.16	6740

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EXAMINER	
DANIEL JR, WILLIE J	

ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/065,413	CAMP, WILLIAM O.	
	Examiner	Art Unit	
	Willie J. Daniel, Jr.	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 20 October 2004.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-15 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 20 October 2004 is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to applicant's amendment filed on 20 October 2004. **Claims 1-15** are now pending in the present application.

Drawings

2. The objection to the drawings is withdrawn, as the proposed Fig. 5 correction is approved.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 4, 6, 10-11, 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp (US 6,035,202) in view of Rabinowitz et al. (hereinafter Rabinowitz) (US 6,522,297 B1).

Regarding **Claim 1**, Camp discloses of a mobile unit (10) which reads on the claimed "mobile terminal" comprising:

a cellular telephone reception circuitry (90) which reads on the claimed "radio subsystem" operable to receive a radio signal (see col. 3, lines 36-46; Fig. 2);

a reception circuitry (115) which reads on the claimed "ranging signal receiving subsystem" for receiving FM, AM, or TV signal which reads on the claimed "terrestrial ranging signals", a terrestrial ranging signal comprising synchronization bursts which are

equally spaced in time (see col. 2, line 66 - col. 3, line 9; col. 2, lines 60-63), where the mobile unit has reception circuitry that accepts TV signals in which the burst are approximately 0.1 seconds for equal spacing. The reception circuitry has other variants such as AM or FM signaling that can be used for location purposes in which the signals (TV, AM or FM) being terrestrial would be obvious. ;

a IF filter (145) which reads on the "common filter" operatively connected to the radio subsystem (90) and the ranging signal receiving subsystem (115), the common filter (145) having a bandpass that is smaller than a bandwidth of the terrestrial ranging signal (see col. 3, lines 54-66; col. 4, lines 46-57; col. 2, line 66 - col. 3, line 9), where the common filter is connected to the cellular telephone reception circuitry (90) and the FM, AM, or TV reception circuitry (115) in which the signal (i.e., FM, AM, or TV) is down converted to fit the bandpass of the cellular telephone. Camp fails to disclose having the feature a correlation subsystem operatively connected to the common filter, the correlation subsystem operable to enable recovery of the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter. However, the examiner maintains that the feature a correlation subsystem operatively connected to the common filter, the correlation subsystem operable to enable recovery of the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter was well known in the art, as taught by Rabinowitz.

In the same field of endeavor, Rabinowitz discloses the feature a correlator integrator (1516) which reads on the claimed "correlation subsystem" operatively connected to the

bandpass filter (1507) which reads on the claimed "common filter", the correlation subsystem (1516) operable to enable recovery of the synchronization bursts by correlating the TV signal (402) which reads on the claimed "terrestrial ranging signal" with a known sequence that has been predistorted to account for the bandpass of the common filter (1507) (see col. 6, lines 43-52; col. 11, lines 10-24,49-53; col. 11, line 58 - col. 12, line 9; col. 12, line 60 - col. 13, line 3; col. 14, lines 13-34; Figs. 4, 13, 15), where the user terminal (102) receives TV signals that are down converted to a narrower bandpass for the bandpass filter in which a correlator correlates the GCR signal burst of the TV signal that is used for locating the user terminal (102) (see col. 6, lines 43-52; Figs. 1-3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp and Rabinowitz to have the feature a correlation subsystem operatively connected to the common filter, the correlation subsystem operable to enable recovery of the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter, in order to autocorrelate the TV signal from the GCR burst for determining the position of the user terminal, as taught by Rabinowitz.

Regarding **Claim 2**, Camp lacks the feature wherein the correlation subsystem correlates the terrestrial ranging signal at least in part by searching a correlation window that is determined at least in part by an approximate location of the mobile terminal within a network. However, the examiner maintains that the feature wherein the correlation subsystem correlates the terrestrial ranging signal at least in part by searching a correlation

window that is determined at least in part by an approximate location of the mobile terminal within a network was well known in the art, as taught by Rabinowitz.

Rabinowitz further discloses the feature wherein the correlation subsystem (1516) correlates the terrestrial ranging signal (402) at least in part by searching a correlation window that is determined at least in part by an approximate location of the user terminal (102) which reads on the claimed "mobile terminal" within a network (see col. 11, lines 51-53; col. 13, lines 33-64; col. 6, lines 1-42; Figs. 1-4, 14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp and Rabinowitz to have the feature wherein the correlation subsystem correlates the terrestrial ranging signal at least in part by searching a correlation window that is determined at least in part by an approximate location of the mobile terminal within a network, in order to autocorrelate the TV signal from the GCR burst for determining the position of the user terminal, as taught by Rabinowitz.

Regarding **Claim 4**, the combination of Camp and Rabinowitz discloses every limitation claimed, as applied above (see claim 1), in addition Camp further discloses of the mobile terminal (10) of claim 1 further comprising a shared mixer (140) operatively connected to the radio subsystem (90) and the ranging signal receiving subsystem (115) (see Fig. 2).

Regarding **Claim 6**, the combination of Camp and Rabinowitz discloses every limitation claimed, as applied above (see claim 2), in addition Camp further discloses the mobile terminal (10) of claim 2 further comprising a shared mixer (140) operatively

connected to the radio subsystem (90) and the ranging signal receiving subsystem (115) (see Fig. 2).

Regarding **Claim 10**, Camp discloses a method of processing a terrestrial ranging signal in a mobile terminal (10) implementing a terrestrial ranging signal receiver, the method comprising:

receiving the terrestrial ranging signal (TV signals), the terrestrial ranging signal comprising synchronization bursts which are equally spaced in time (see col. col. 2, line 66 - col. 3, line 9; col. 2, lines 60-63), where the mobile unit (10) has reception circuitry that accepts TV signals in which the burst are approximately 0.1 seconds for equal spacing. The reception circuitry has other variants such as AM or FM signaling that can be used for location purposes in which the signals (TV, AM or FM) being terrestrial would be obvious.;

passing the terrestrial ranging signal through a common filter having a bandpass that is smaller than the bandwidth of the terrestrial ranging signal, but substantially equal to or greater than the bandwidth of a native radio signal (see col. 3, lines 54-66; col. 4, lines 46-57), where the common filter is connected to the cellular telephone reception circuitry (90) and the FM, AM, or TV reception circuitry (115) in which the signal (i.e., FM, AM, or TV) is down converted to fit the bandpass of the cellular telephone. Camp fails to disclose having the feature recovering the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter. However, the examiner maintains that the feature recovering the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been

predistorted to account for the bandpass of the common filter was well known in the art, as taught by Rabinowitz.

Rabinowitz further discloses the feature recovering the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter (1507) (see col. 6, lines 43-52; col. 11, lines 10-24,49-53; col. 11, line 58 - col. 12, line 9; col. 12, line 60 - col. 13, line 3; col. 14, lines 13-34; Figs. 4, 13, 15), where the user terminal (102) receives TV signals that are down converted to a narrower bandpass for the bandpass filter in which a correlator correlates the GCR signal burst of the TV signal that is used for locating the user terminal (102) (see col. 6, lines 43-52; Figs. 1-3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp and Rabinowitz to have the feature recovering the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter, in order to autocorrelate the TV signal from the GCR burst for determining the position of the user terminal, as taught by Rabinowitz.

Regarding **Claim 11**, Camp lacks the feature wherein the recovering of the synchronization bursts is accomplished at least in part by searching a correlation window that is determined by an approximate location of the mobile terminal within a network. However, the examiner maintains that the feature wherein the recovering of the synchronization bursts is accomplished at least in part by searching a correlation window that is determined by an

approximate location of the mobile terminal within a network was well known in the art, as taught by Rabinowitz.

Rabinowitz further discloses the feature wherein the recovering of the synchronization bursts is accomplished at least in part by searching a correlation window that is determined by an approximate location of the mobile terminal (102) within a network (see col. 11, lines 51-53; col. 13, lines 33 - col. 14, line 11; col. 6, lines 1-42; Figs. 1-4, 14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp and Rabinowitz to have the feature wherein the recovering of the synchronization bursts is accomplished at least in part by searching a correlation window that is determined by an approximate location of the mobile terminal within a network, in order to autocorrelate the TV signal from the GCR burst for determining the position of the user terminal, as taught by Rabinowitz.

Regarding **Claim 13**, Camp discloses a method of processing a terrestrial ranging signal in a mobile terminal implementing a terrestrial ranging signal receiver, the method comprising:

means (125) for receiving a terrestrial ranging signal (TV signals), the terrestrial ranging signal comprising synchronization bursts which are equally spaced in time (see col. col. 2, line 66 - col. 3, line 9; col. 2, lines 60-63), where the mobile unit (10) has reception circuitry that accepts TV signals in which the burst are approximately 0.1 seconds for equal spacing. The reception circuitry has other variants such as AM or FM signaling that can be used for location purposes in which the signals (TV, AM or FM) being terrestrial would be obvious.;

means (140) for passing the terrestrial ranging signal through a common filter having a bandpass that is smaller than the bandwidth of the terrestrial ranging signal, but substantially equal to or greater than the bandwidth of a native radio signal (see col. 3, lines 54-66; col. 4, lines 46-57), where the common filter is connected to the cellular telephone reception circuitry (90) and the FM, AM, or TV reception circuitry (115) in which the signal (i.e., FM, AM, or TV) is down converted to fit the bandpass of the cellular telephone. Camp fails to disclose having the feature means for recovering the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter. However, the examiner maintains that the feature means for recovering the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter was well known in the art, as taught by Rabinowitz.

Rabinowitz further discloses the feature means for recovering the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter (1507) (see col. 6, lines 43-52; col. 11, lines 10-24,49-53; col. 11, line 58 - col. 12, line 9; col. 12, line 60 - col. 13, line 3; col. 14, lines 13-34; Figs. 4, 13, 15), where the user terminal (102) receives TV signals that are down converted to a narrower bandpass for the bandpass filter in which a correlator correlates the GCR signal burst of the TV signal that is used for locating the user terminal (102) (see col. 6, lines 43-52; Figs. 1-3). The means for recovery would be obvious.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp and Rabinowitz to have the

feature means for recovering the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter, in order to autocorrelate the TV signal from the GCR burst for determining the position of the user terminal, as taught by Rabinowitz.

Regarding **Claim 14**, Camp lacks the feature wherein the means for recovering further comprises means for searching a correlation window that is determined by an approximate location of the mobile terminal within a network. However, the examiner maintains that the feature wherein the means for recovering further comprises means for searching a correlation window that is determined by an approximate location of the mobile terminal within a network was well known in the art, as taught by Rabinowitz.

Rabinowitz further discloses the feature wherein the means for recovering further comprises means for searching a correlation window that is determined by an approximate location of the mobile terminal (102) within a network (see col. 11, lines 51-53; col. 13, lines 33 - col. 14, line 11; col. 6, lines 1-42; Figs. 1-4, 14), where the means for recovering would be obvious.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp and Rabinowitz to have the feature wherein the means for recovering further comprises means for searching a correlation window that is determined by an approximate location of the mobile terminal within a network, in order to autocorrelate the TV signal from the GCR burst for determining the position of the user terminal, as taught by Rabinowitz.

Claims 3, 8, 12, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp (US 6,035,202) and Rabinowitz et al. (hereinafter Rabinowitz) (US 6,522,297 B1) as applied to claim 1, 10, and 13 above, and further in view of Rabinowitz et al. (hereinafter Rabinowitz) (US 20020144294 A1).

Regarding **Claim 3**, the combination of the Camp and Rabinowitz ('297) discloses wherein the correlation subsystem (1516) correlates the terrestrial ranging signal (402) at least in part by performing multiple correlations (see Rabinowitz ('297) - col. 11, lines 51-53; col. 11, line 59 - col. 12, line 9; col. 14, lines 13-35; Figs. 4, 15). The combination of Camp and Rabinowitz ('297) fails to disclose the correlations at times separated by one over a known rate of occurrence of the synchronization bursts. However, the examiner maintains that the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts was well known in the art, as taught by Rabinowitz ('294).

In the same field of endeavor, Rabinowitz ('294) further discloses the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts (see pg. 5, [0074-0076]; Fig. 4), where the correlator uses the time samples of the segments for autocorrelation of the signal in which the segments of the signal relate to the synchronization bursts.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp, Rabinowitz ('297) and Rabinowitz ('294) to have the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts, in order to autocorrelate the TV signal of DTV towers for determining the location of a handset, as taught by Rabinowitz ('294).

Regarding **Claim 8**, the combination of Camp, Rabinowitz ('297), and Rabinowitz ('294) discloses every limitation claimed, as applied above (see claim 3), in addition Camp further discloses the mobile terminal (10) of claim 3 further comprising a shared mixer (140) operatively connected to the radio subsystem (90) and the ranging signal receiving subsystem (115).

Regarding **Claim 12**, the combination of the Camp and Rabinowitz ('297) discloses wherein the recovering of the synchronization bursts is accomplished at least in part by performing multiple correlations (see Rabinowitz ('297) - col. 11, lines 51-53; col. 11, line 59 - col. 12, line 9; col. 14, lines 13-35; Figs. 4, 15). The combination of Camp and Rabinowitz ('297) fails to disclose the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts. However, the examiner maintains that the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts was well known in the art, as taught by Rabinowitz ('294).

Rabinowitz ('294) further discloses the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts (see pg. 5, [0074-0076]; Fig. 4), where the correlator uses the time samples of the segments for autocorrelation of the signal in which the segments of the signal relate to the synchronization bursts.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp, Rabinowitz ('297) and Rabinowitz ('294) to have the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts, in order to autocorrelate the TV signal of DTV towers for determining the location of a handset, as taught by Rabinowitz ('294).

Regarding **Claim 15**, the combination of the Camp and Rabinowitz ('297) discloses wherein the means for recovering further comprises means for performing multiple correlations (see Rabinowitz ('297) - col. 11, lines 51-53; col. 11, line 59 - col. 12, line 9; col. 14, lines 13-35; Figs. 4, 15), where the means for recovery and performing multiple correlations would be obvious. The combination of Camp and Rabinowitz ('297) fails to disclose the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts. However, the examiner maintains that the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts was well known in the art, as taught by Rabinowitz ('294).

Rabinowitz ('294) further discloses the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts (see pg. 5, [0074-0076]; Fig. 4), where the correlator uses the time samples of the segments for autocorrelation of the signal in which the segments of the signal relate to the synchronization bursts.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp, Rabinowitz ('297) and Rabinowitz ('294) to have the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts, in order to autocorrelate the TV signal of DTV towers for determining the location of a handset, as taught by Rabinowitz ('294).

Claims 5, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp (US 6,035,202) and Rabinowitz et al. (hereinafter Rabinowitz) (US 6,522,297 B1) as applied to claims 4 and 6 above, and further in view of Soliman (US 6,166,685).

Regarding **Claim 5**, the combination of Camp and Rabinowitz ('297) discloses every limitation claimed, as applied above (see claim 4), in addition Camp further discloses the mobile terminal (10) comprising a radio subsystem (90) and the ranging signal receiving subsystem (115) (see Fig. 2). The combination of Camp and Rabinowitz fails to disclose the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem. However, the examiner maintains that the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem was well known in the art, as taught by Soliman.

In the same field of endeavor, Soliman discloses the feature of a shared amplifier (336) operatively connected to the antenna system (330) for voice traffic which reads on the claimed "radio subsystem" and the antenna system (330) for position tracking system (e.g., GPS signals) which reads on the claimed "ranging signal receiving subsystem" (see col. 8, lines 32-60; Fig. 3), where the mobile station (300) has analog receiver (334) that amplifies the signals in which the amplifier would be obvious and the systems are operatively connected to amplifier (336).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp, Rabinowitz, and Soliman to have the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem, in order to amplify the signals received from the voice traffic and position tracking system, as taught by Soliman.

Regarding **Claim 7**, the combination of Camp and Rabinowitz ('297) discloses every limitation claimed, as applied above (see claim 6), in addition Camp further discloses the

mobile terminal (10) comprising a radio subsystem (90) and the ranging signal receiving subsystem (115) (see Fig. 2). The combination of Camp and Rabinowitz fails to disclose the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem. However, the examiner maintains that the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem was well known in the art, as taught by Soliman.

Soliman further discloses the feature of a shared amplifier (336) operatively connected to the antenna system (330) for voice traffic which reads on the claimed "radio subsystem" and the antenna system (330) for position tracking system (e.g., GPS signals) which reads on the claimed "ranging signal receiving subsystem" (see col. 8, lines 32-60; Fig. 3), where the mobile station (300) has analog receiver (334) that amplifies the signals in which the amplifier would be obvious and the systems are operatively connected to amplifier (336).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp, Rabinowitz, and Soliman to have the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem, in order to amplify the signals received from the voice traffic and position tracking system, as taught by Soliman.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Camp (US 6,035,202), Rabinowitz et al. (hereinafter Rabinowitz) (US 6,522,297 B1), and Rabinowitz et

al. (hereinafter Rabinowitz) (US 20020144294 A1) as applied to claim 8 above, and further in view of Soliman (US 6,166,685).

Regarding **Claim 9**, the combination of Camp, Rabinowitz ('297), and Rabinowitz ('294) discloses every limitation claimed, as applied above (see claim 8), in addition Camp further discloses the mobile terminal (10) comprising a radio subsystem (90) and the ranging signal receiving subsystem (115) (see Fig. 2). The combination of Camp, Rabinowitz ('297), and Rabinowitz ('294) fails to disclose the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem. However, the examiner maintains that the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem was well known in the art, as taught by Soliman.

Soliman further discloses the feature of a shared amplifier (336) operatively connected to the antenna system (330) for voice traffic which reads on the claimed "radio subsystem" and the antenna system (330) for position tracking system (e.g., GPS signals) which reads on the claimed "ranging signal receiving subsystem" (see col. 8, lines 32-60; Fig. 3), where the mobile station (300) has analog receiver (334) that amplifies the signals in which the amplifier would be obvious and the systems are operatively connected to amplifier (336).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp, Rabinowitz ('297), Rabinowitz ('294), and Soliman to have the feature of a shared amplifier operatively connected to the

radio subsystem and the ranging signal receiving subsystem, in order to amplify the signals received from the voice traffic and position tracking system, as taught by Soliman.

Response to Arguments

4. Applicant's arguments filed 20 October 2004 have been fully considered but they are not persuasive.

Examiner respectfully disagrees with applicant's arguments as the applied reference(s) provide more than adequate support and to further clarify (see the above claims and comments in this section).

5. Regarding applicant's argument of Claim 1 on pg. 2, 4th paragraph, "applicant states cannot find the teachings"..."common filter having a bandpass that is smaller than the bandwidth of the terrestrial ranging signal" in the applied Camp reference, Examiner respectfully disagrees that the limitation is supported in Camp. Camp discloses IF filter (145) which reads on the "common filter" operatively connected to the radio subsystem (90) and the ranging signal receiving subsystem (115), the common filter (145) having a bandpass that is smaller than a bandwidth of the terrestrial ranging signal (e.g., FM, AM, or TV) (see col. 3, lines 54-66; col. 4, lines 46-57; col. 2, line 66 - col. 3, line 9), where the common filter (145) is connected to the cellular telephone reception circuitry (90) and the FM, AM, or TV reception circuitry (115) in which the signal (i.e., FM, AM, or TV) is down converted to fit the bandpass of the cellular telephone. An FM signal is provided to describe the functionality which would be applied to a received AM, FM, and/or TV signal. The received

signal (e.g., AM, FM, and/or TV) would be down converted to a range allowable for audio passband for the cellular telephone (see col. 4, lines 46-53).

6. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., pre-detection bandpass) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding applicant's argument on pg. 2, 4th paragraph, lines 7-9, applicant states "a pre-detection bandpass" is claimed.

7. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

8. Regarding applicant's argument of Claims 1, 10, and 13 on pg. 3, 2nd paragraph, "applicant states can find no mentions"..."correlating the terrestrial ranging signal with a known sequence that has been predistorted" in the applied reference(s) combination of Camp and Rabinowitz, Examiner respectfully disagrees that the limitation is supported in Camp and Rabinowitz. Camp discloses correlating the terrestrial ranging signal with a known sequence that has been predistorted (see col. 6, lines 43-52; col. 11, lines 10-24,49-53; col. 11, line 58 - col. 12, line 9; col. 12, line 60 - col. 13, line 3; col. 14, lines 13-34; Figs. 4, 13, 15), where the user terminal (102) receives TV signals that are down converted to a narrower bandpass for the bandpass filter in which a correlator provides predistortion by having autocorrelation of

the GCR signal burst of the TV signal that is used for locating the user terminal (102) (see col. 6, lines 43-52; Figs. 1-3).

9. Regarding applicant's argument of Claims 1, 10, and 13 on pg. 3, 2nd paragraph, "applicant states can find no mention"..."correlating the terrestrial ranging signal with a known sequence that has been predistorted" in the applied reference(s) combination of Camp and Rabinowitz, Examiner respectfully disagrees that the limitation is supported in Camp and Rabinowitz. The combination of Camp and Rabinowitz discloses correlating the terrestrial ranging signal with a known sequence that has been predistorted (see col. 6, lines 43-52; col. 11, lines 10-24,49-53; col. 11, line 58 - col. 12, line 9; col. 12, line 60 - col. 13, line 3; col. 14, lines 13-34; Figs. 4, 13, 15), where the user terminal (102) receives TV signals that are down converted to a narrower bandpass for the bandpass filter in which a correlator provides predistortion by having autocorrelation of the GCR signal burst of the TV signal that is used for locating the user terminal (102) (see col. 6, lines 43-52; Figs. 1-3).

10. Regarding applicant's argument of Claims 3, 12, and 15 on pg. 3, 3rd paragraph, "applicant states can find no mention"..."one over a known rate of occurrence of the synchronization burst" in the applied reference(s) combination of Camp and Rabinowitz ('297 and '294), Examiner respectfully disagrees that the limitation is supported in Camp and Rabinowitz ('297 and '294). The combination of Camp and Rabinowitz discloses one over a known rate of occurrence of the synchronization burst (see pg. 5, [0074-0076]; Fig. 4), where the correlator uses the time samples of the segments for autocorrelation of the signal in which the segments of the signal relate to the synchronization bursts (e.g., segments) for the time offset (see Rabinowitz '294 pg. 5, [0074], lines 12-14).

11. Regarding applicant's argument of claims 2,4-9, 11, 14-15, the claims are rejected for the same reasons as set forth above.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie J. Daniel, Jr. whose telephone number is (571) 272-7907. The examiner can normally be reached on 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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WJD,JR
01 April 2005